

APPARATUS AND METHOD FOR PERFORMING A FAIL-SAFE
OVER-THE-AIR SOFTWARE UPDATE IN A MOBILE STATION

5 ABSTRACT OF THE DISCLOSURE

A wireless communication device capable of downloading a software update file from a wireless network. The wireless communication device comprises a non-volatile memory that is re-programmed by sectors. The non-volatile memory stores: i) a target file to be updated, ii) the downloaded software update file, and
10 iii) a journal comprising a plurality of entries, each of the entries containing status information associated with a re-programmed sector of the non-volatile memory. The wireless communication device also comprises a random access memory and a
15 main processor that replaces target code in the target file with replacement code from the downloaded software update file. The main processor creates a first block of replacement code in the random access memory and re-programs a first target sector of the
20 non-volatile memory by storing the first block of replacement code into the first target sector. The main processor updates first status information in a first entry in the journal associated with the first target sector.